

Table S1: Grain size distribution of the surface and core samples

|                        | <63 (%) | 63-125 (%) | >125 (%) |
|------------------------|---------|------------|----------|
| <b>surface samples</b> |         |            |          |
| 021207-11A             | 2.36    | 1.12       | 96.52    |
| 021207-12A             | 0.54    | 1.69       | 97.76    |
| 021207-14A             | 1.42    | 1.50       | 97.08    |
| 021207-16A             | 32.27   | 18.74      | 48.98    |
| 031207-21A             | 39.90   | 19.69      | 40.41    |
| 031207-22A             | 31.81   | 19.51      | 48.68    |
| 031207-26A             | 9.48    | 10.62      | 79.90    |
| 031207-27A             | 2.14    | 3.86       | 94.00    |
| 031207-29A             | 3.29    | 1.85       | 94.86    |
| 051207-33A             | 1.39    | 0.24       | 98.37    |
| 051207-35A             | 2.62    | 0.49       | 96.89    |
| 051207-38A             | 1.78    | 0.48       | 97.74    |
| 051207-40A             | 1.84    | 0.43       | 97.73    |
| 051207-42A             | 1.34    | 0.33       | 98.34    |
| 081207-75A             | 2.04    | 0.56       | 97.39    |
| 061208-01A             | 2.17    | 31.74      | 66.08    |
| 061208-05A             | 83.87   | 11.55      | 4.58     |
| 061208-06II-B2         | 2.04    | 13.25      | 84.71    |
| 061208-11A             | 93.66   | 2.95       | 3.38     |
| 061208-12B             | 1.12    | 0.65       | 98.23    |
| 061208-13A             | 0.36    | 1.17       | 98.47    |
| 061208-15B             | 67.92   | 16.52      | 15.56    |
| 061208-16A             | 0.69    | 3.33       | 95.98    |
| 061208-19B             | 26.21   | 1.98       | 71.81    |
| 030310-21A             | 32.59   | 4.26       | 63.15    |
| <b>Core 030310-C3</b>  |         |            |          |
| 5-6 cm                 | 98.32   | 0.43       | 1.25     |
| 29-30 cm               | 27.19   | 0.28       | 72.53    |
| 33-34 cm               | 88.21   | 8.02       | 3.77     |
| 42-43 cm               | 61.43   | 12.49      | 26.08    |
| 52-53 cm               | 31.22   | 40.74      | 28.04    |
| 69-70 cm               | 39.93   | 6.80       | 53.26    |
| 73-74 cm               | 97.31   | 1.04       | 1.65     |
| 82-83 cm               | 37.73   | 14.72      | 47.56    |
| 86-87 cm               | 98.27   | 1.07       | 0.66     |
| <b>Core 050310-C4</b>  |         |            |          |
| 3-4 cm                 | 73.41   | 10.45      | 16.14    |
| 12-13 cm               | 53.33   | 7.83       | 38.84    |
| 15-16 cm               | 62.92   | 8.71       | 28.37    |
| 22-23 cm               | 32.74   | 6.28       | 60.98    |
| 35-36 cm               | 87.92   | 3.03       | 9.05     |
| 43-44 cm               | 77.47   | 5.91       | 16.62    |
| 50-51 cm               | 20.19   | 6.60       | 73.21    |
| 54-55 cm               | 27.45   | 7.54       | 65.01    |